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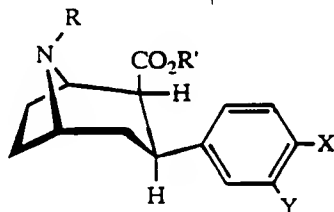
RBI-101XX

AN IODINATED NEUROPROBE FOR MAPPING MONOAMINE REUPTAKE SITES

ABSTRACT

of the Disclosure

SA 1 An iodinated neuroprobe is provided for mapping monoamine
2 reuptake sites. The iodinated neuroprobe is of the formula:



PS 4 wherein

PS 4
PIH 14
H 6
B 4 7
PI 40 H 3 4
R = a C_nH_{2n+1} group where $n=0-6$, an alkenyl group, a monofluoroalkyl group including "F" where $n=18$ or 19 , or a $^{m}C_nH_{2n+1}$ group where $n=1-6$ and where $m=11$ or 14 for at least one ^{m}C ;

R' = a C_nH_{2n+1} group where $n=0-6$, a *p*-iodophenylmethyl group, a *p*-iodophenylethyl group, a phenylmethyl group, or a phenylethyl group;

PI 11 X = an isotope of F, an isotope of Cl, an isotope of Br, an
H 12 isotope of I, CH_3 , or $Sn(R''_1R''_2R''_3)$;

PIH 14
PIH 14
PIH 14
R''₁ = a C_nH_{2n+1} group where $n=1-6$, or an aryl group;

R''₂ = a C_nH_{2n+1} group where $n=1-6$, or an aryl group;

PIH 14
PI 40
R''₃ = a C_nH_{2n+1} group where $n=1-6$, or an aryl group; and

PI 40
L 17
Y = H only if X is an isotope of I, or R' is a *p*-iodophenylmethyl group, or R' is a *p*-iodophenylethyl group, else Y = an isotope of I.

PS 19 Related analogs are also provided. Additionally, a precursor of a
20 radiolabeled neuroprobe and a kit for preparing the iodinated
21 neuroprobe are provided.

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